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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,938	11/14/2005	Werner Hemmert	I432.118.101/P30059	2398
25281 7590 01/21/2010 DICKE, BILLIG & CZAJA FIFTH STREET TOWERS 100 SOUTH FIFTH STREET, SUITE 2250 MINNEAPOLIS, MN 55402				
EXAMINER KINKEAD, ARNOLD M				
ART UNIT 2817		PAPER NUMBER		
MAIL DATE 01/21/2010		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,938

Applicant(s)

HEMMERT, WERNER

Examiner

Arnold Kinhead

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-39 is/are allowed.
- 6) ☒ Claim(s) 22, 27, 29, 40 and 43 is/are rejected.
- 7) ☒ Claim(s) 23-26, 28, 30, 41 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: It is advised that proper headings for the specification be inserted where appropriate. Also, remove any "WO 2004... and PCT/DE..." headings on the spec pages..

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22, 27, 29, 40, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Washburn (US 6,606,007 new cite).

The reference to Washburn discloses a VCO with resonator(see figure 9(VCO)) with resonant circuit (X1, Cp,1) with inherent quality factor. as noted in col. 11, lines 10-20:

"...In some cases, the excessive signal swings can induce non-linear behavior in the amplifier, sometimes manifesting itself as an effective resistance across the resonant network (thus, reducing the Q). In the present embodiment of the circuit and method disclosed herein, an AGC

circuit monitors the amplitude of the oscillator output signal, and uses the control current to adjust the $g_{sub.m}$ of the OTAs to constrain the signal level to the desired range. Note that the ratio of $g_{sub.m}$ in the OTAs is preserved during AGC operation. Thus, for example, the transconductance of OTA 34 is always 10% of the transconductance of OTA 30, as the AGC increases or decreases $g_{sub.m}$. Advantageously, because the OTAs have a current source output, they retain their high output impedance even if their $g_{sub.m}$ is reduced by the action of the AGC circuit..."

This shows that to maintain a desired amplitude level, control of the quality factor of the resonator tank is by way of the AGC and OTAs as shown. The output signal taken at V_x is used by the AGC circuit (monitored) and a loop is formed. This allows for a better reference clock for a processor connected downstream, As noted in col. 1.

Allowable Subject Matter

Claims 23-26, 28, 30, 41, 42 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 31- 39 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold Kinhead whose telephone number is 571-272-1763. The examiner can normally be reached on Mon-Thurs: 8:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Arnold Kinhead/

Primary Examiner, Art Unit 2817